

Algebra/Data Analysis Toolkit: Indicator 1.2.3

Student Handout: Algebra/Data Analysis: Indicator 1.2.3

Goal 1.0 Functions and Algebra

Expectation 1.2 The student will model and interpret real-world situations using the language of mathematics and appropriate technology.

Indicator 1.2.3 The student will solve and describe using numbers, symbols, and/or graphs if and where two straight lines intersect.

Assessment Limits:

Functions will be of the form: $Ax + By = C$, $Ax + By + C = 0$, or $y = mx + b$.

All coefficients will be rational.

Vertical lines will be included.

Systems of linear functions will include coincident, parallel, or intersecting lines.

The majority of these items should be in real-world context.

Public Release - Selected Response Item - Released in 2009

Algebra/Data Analysis Indicator 1.2.3

Look at the system of equations below.

$$\begin{aligned}y &= -2x + 5 \\y &= -2x + 3\end{aligned}$$

Which of these statements must be true?

- A. The lines intersect at (3,5).
- B. The lines intersect at $\left(-\frac{1}{2}, 4\right)$.
- C. The equations represent the same line.
- D. The equations represent parallel lines.

Correct Answer

- D. The equations represent parallel lines.

Item

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